

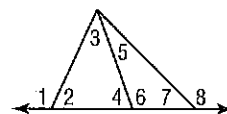
## 5-2

## Skills Practice

## Inequalities and Triangles

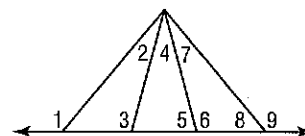
Determine which angle has the greatest measure.

1.  $\angle 1, \angle 3, \angle 4$
2.  $\angle 4, \angle 5, \angle 7$
3.  $\angle 2, \angle 3, \angle 6$
4.  $\angle 5, \angle 6, \angle 8$



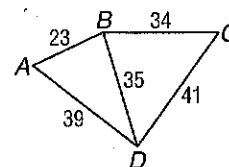
Use the Exterior Angle Inequality Theorem to list all angles that satisfy the stated condition.

5. all angles whose measures are less than  $m\angle 1$
6. all angles whose measures are less than  $m\angle 9$
7. all angles whose measures are greater than  $m\angle 5$
8. all angles whose measures are greater than  $m\angle 8$



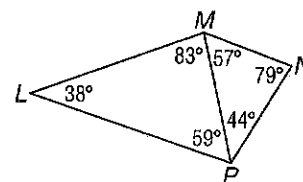
Determine the relationship between the measures of the given angles.

9.  $m\angle ABD, m\angle BAD$
10.  $m\angle ADB, m\angle BAD$
11.  $m\angle BCD, m\angle CDB$
12.  $m\angle CBD, m\angle CDB$



Determine the relationship between the lengths of the given sides.

13.  $\overline{LM}, \overline{LP}$
14.  $\overline{MP}, \overline{MN}$
15.  $\overline{MN}, \overline{NP}$
16.  $\overline{MP}, \overline{LP}$



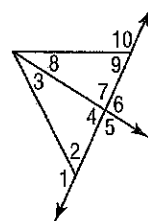
## 5-2

## Practice

## Inequalities and Triangles

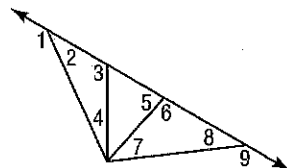
Determine which angle has the greatest measure.

1.  $\angle 1, \angle 3, \angle 4$
2.  $\angle 4, \angle 8, \angle 9$
3.  $\angle 2, \angle 3, \angle 7$
4.  $\angle 7, \angle 8, \angle 10$



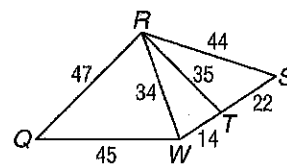
Use the Exterior Angle Inequality Theorem to list all angles that satisfy the stated condition.

5. all angles whose measures are less than  $m\angle 1$
6. all angles whose measures are less than  $m\angle 3$
7. all angles whose measures are greater than  $m\angle 7$
8. all angles whose measures are greater than  $m\angle 2$



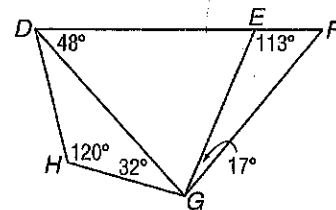
Determine the relationship between the measures of the given angles.

9.  $m\angle QRW, m\angle RWQ$
10.  $m\angle RTW, m\angle TWR$
11.  $m\angle RST, m\angle TRS$
12.  $m\angle WQR, m\angle QRW$



Determine the relationship between the lengths of the given sides.

13.  $\overline{DH}, \overline{GH}$
14.  $\overline{DE}, \overline{DG}$
15.  $\overline{EG}, \overline{FG}$
16.  $\overline{DE}, \overline{EG}$



17. **SPORTS** The figure shows the position of three trees on one part of a Frisbee™ course. At which tree position is the angle between the trees the greatest?

